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10/589,002	08/10/2006	Nathalie Vast	062836	4620
38834 7590 08/03/2010 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036				
EXAMINER HAUPT, KRISTY A				
ART UNIT 2876		PAPER NUMBER		
NOTIFICATION DATE 08/03/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary

Application No.

10/589,002

Applicant(s)

VAST ET AL.

Examiner

KRISTY A. HAUPT

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/22)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to Applicant's Amendments and Remarks filed 5/19/10. Claims 1 and 4-24 are pending with claim 1 in independent form.

Priority

1. This Application is a National Stage entry of PCT/FR05/00337 filed 2/11/05, which claims priority to foreign application FR 0401330 filed 2/11/04.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 6-8, 10, 12 and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaule et al. US 4,892,336.

Kaule teaches:

With respect to claim 1:

- A flat security element, having a front side and a reverse side, and being relatively small in size (Abstract teaches security threads), such as planchettes, wherein the element includes, an in-register authentication pattern (Abstract) comprising at least one of (i) a combination and (ii) a superposition of a front side pattern on its front side and of a reverse side

pattern on its reverse side (Abstract; Column 3, Lines 35-42; Column 6, Lines 25-43; Column 6, Line 67 – Column 7, Line 2), at least one of said authentication patterns being at least partly observable in transmitted light (Column 5, Lines 2-14), wherein said in-register authentication pattern is in register either with respect to at least one portion of the shape of said security element or with respect to at least one portion of said front and reverse side patterns (Abstract)

With respect to claim 6 and incorporating all limitations of claim 1:

- Wherein one of said patterns is a pattern in the form of a geometric pattern, in particular in alphanumeric form, and/or in the form of a grid and/or lines and/or dots (Column 5, Lines 6-14, Lines 30-37; Column 6, Lines 25-43)

With respect to claim 7 and incorporating all limitations of claim 1:

- Wherein the dimensions of said element are between 0.5 and 6mm, preferably between 1 and 4mm (Column 2, Lines 20-23)

With respect to claim 8 and incorporating all limitations of claim 1:

- Wherein it has a geometric shape, especially a circular, triangular, oval, square or rectangular shape, or a star shape, moon shape or a shape with curved edges (Column 2, Lines 20-23; Figure 5b, 7a-7b; 9 and 10)

With respect to claim 10 and incorporating all limitations of claim 1:

- Wherein said element includes patterns chosen from those that are visible in natural light or visible in UV light, that are luminescent, particularly fluorescent or phosphorescent, that are detectable by near or medium infrared radiation, that are thermochromic or piezochromic, that are based on DNA traces, that are optically variable, especially iridescent, or based on liquid crystals or on diffraction gratings or on moiré patterns or holograms, or that are electromagnetic or combinations thereof (Column 5, Lines 2-14)

With respect to claim 12 and incorporating all limitations of claim 1:

- Wherein at least one of the patterns is visible to the naked eye (Column 5, Lines 2-14)

With respect to claim 23 and incorporating all limitations of claim 1:

- At least one portion of said authentication patterns is printed in one or more steps on one of the sides of its medium (Abstract; Column 6, Lines 22-43)
- At least one portion of said authentication patterns is printed, where appropriate on the other side, in one or more steps, either by being in register with respect to at least one portion of the shape of said element or

by being in registration with respect to the previously printed portion
(Abstract; Column 6, Lines 22-43; Column 6, Line 65 – Column 7, Line 2)

With respect to claim 24 and incorporating all limitations of claim 23:

- Wherein the printed medium is cut in registration into security elements of the desired shape and such that at least the in-register pattern is wholly present on said element (Column 7, Lines 5-31)

Claim Rejections - 35 USC § 103

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaule et al. US 4,892,336 in view of Melling et al. US 4,943,093.

The teachings of Kaule have been discussed above.

Kaule additionally teaches:

With respect to claim 15 and incorporating all limitations of claim 14:

- Wherein said medium has a low basis weight, in particular between 25 and 40 g/m² and/or a thickness between about 50 and 100 μm (Column 5, Lines 51-54)

Kaule fails to teach:

With respect to claim 4 and incorporating all limitations of claim 1:

- Wherein said element includes, as pattern on the front side, at least one given color and as pattern on the reverse side at least one other given color, said authentication pattern observed in transmitted light being the color resulting from the color on the reverse side and the color on the front side (Kaule teaches printing colors on the security element where the security element can change its color as the viewing angle changes, however does not explicitly teach a pattern that results from the color on the front and reverse side of the security element)

With respect to claim 13 and incorporating all limitations of claim 1:

- Wherein said element includes chemical authentication reactants, or reactants that reveal a specific event

With respect to claim 14 and incorporating all limitations of claim 1:

- Wherein said security element has a medium chosen from a fibrous sheet, a plastic film and a complex of these materials

However, Melling teaches:

With respect to claim 4 and incorporating all limitations of claim 1:

- Wherein said element includes, as pattern on the front side, at least one given color and as pattern on the reverse side at least one other given color, said authentication pattern observed in transmitted light being the color resulting from the color on the reverse side and the color on the front side (Column 7, Lines 45-58)

With respect to claim 13 and incorporating all limitations of claim 1:

- Wherein said element includes chemical authentication reactants, or reactants that reveal a specific event (Column 2, Lines 48-53 teaches using fluorescent or phosphorescent materials)

With respect to claim 14 and incorporating all limitations of claim 1:

- Wherein said security element has a medium chosen from a fibrous sheet, a plastic film and a complex of these materials (Column 4, Lines 64-65)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Kaule to incorporate different color dyes on opposite sides of the thread that will result in a color from the combination of the two dyes, as taught by Melling, to further enhance the security of the security element by providing an additional counterfeit prevention technique that is difficult to reproduce.

Claims 1, 6-8, 10-12, 14, 16 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dames et al. US 5,697,649 in view of Melling et al. US 4,943,093.

Dames teaches:

With respect to claim 1:

- A flat security element, having a front side and a reverse side, and being relatively small in size, such as planchettes (Abstract; Column 3, Lines 58-59) wherein the element includes, an in-register authentication pattern (Column 4, Line 56 - Column 5, Line 19; Figures 1-3), at least one of said authentication patterns being at least partly observable in transmitted light (Column 6, Lines 5-10), wherein said in-register authentication pattern is in register either with respect to at least one portion of the shape of said

security element or with respect to at least one portion of said front side and reverse side patterns (Figures 1-3; Column 4, Line 56 – Column 5, Line 19)

With respect to claim 6 and incorporating all limitations of claim 1:

- Wherein one of said patterns is a pattern in the form of a geometric pattern, in particular in alphanumeric form, and/or in the form of a grid and/or lines and/or dots (Column 5, Lines 41-43; Column 5, Line 60 - Column 6, Line 10; Figures 1-4)

With respect to claim 7 and incorporating all limitations of claim 1:

- Wherein the dimensions of said element are between 0.5 and 6mm, preferably between 1 and 4mm (Column 5, Lines 24-27 and 49-52)

With respect to claim 8 and incorporating all limitations of claim 1:

- Wherein it has a geometric shape, especially a circular, triangular, oval, square or rectangular shape, or a star shape, moon shape or a shape with curved edges (Figures 1-4)

With respect to claim 10 and incorporating all limitations of claim 1:

- Wherein said element includes patterns chosen from those that are visible in natural light or visible in UV light (Column 6, Lines 5-10), that are

luminescent, particularly fluorescent or phosphorescent, that are detectable by near or medium infrared radiation, that are thermochromic or piezochromic, that are based on DNA traces, that are optically variable, especially iridescent, or based on liquid crystals or on diffraction gratings or on moiré patterns or holograms, or that are electromagnetic or combinations thereof

With respect to claim 11 and incorporating all limitations of claim 10:

- Wherein said element includes, beneath or alongside said patterns, printing of electromagnetic, especially magnetic, character and, in particular, continuous tracks or codes in the form of magnetic bits (Figures 1-3; Column 5, Line 1-5)

With respect to claim 12 and incorporating all limitations of claim 1:

- Wherein at least one of the patterns is visible to the naked eye (Column 6, Lines 5-10)

With respect to claim 14 and incorporating all limitations of claim 1:

- Wherein said security element has a medium chosen from a fibrous sheet, a plastic film and a complex of these materials (Column 5, Lines 19-25)

With respect to claim 16 and incorporating all limitations of claim 14:

- Wherein said fibrous sheet of said medium is based on natural and/or synthetic fibers (Column 5, Lines 19-25)

With respect to claim 18 and incorporating all limitations of claim 14:

- Wherein the plastic film of said element is a polyester film (Column 5, Lines 19-25)

With respect to claim 19 and incorporating all limitations of claim 14:

- Wherein said element is based on a bulk-opacified medium or on a medium having, on at least one of its sides, at least partly, a full or partial color, opacifying or barrier layer or printing (Column 8, Lines 12-19 teaches printing)

With respect to claim 20 and incorporating all limitations of claim 1:

- A security sheet comprising a fibrous substrate (Column 7, Lines 14-22) that includes several flat security elements of relatively small size (Column 1, Lines 9-13; Column 3, Lines 23-26; Column 7, Lines 14-26)

With respect to claim 21 and incorporating all limitations of claim 20:

- Wherein said security elements are arranged in the form of a band and/or randomly distributed within said substrate (Column 7, Lines 14-26; Figure 3)

With respect to claim 22 and incorporating all limitations of claim 20:

- A security document obtained from a sheet (Column 7, Lines 14-22)

Dames fails to explicitly teach:

With respect to claim 1:

- The authentication pattern comprises at least one of (i) a combination and (ii) a superposition of a front side pattern on its front side and of a reverse side pattern on its reverse side

However, Melling teaches:

With respect to claim 1:

- The authentication pattern comprises at least one of (i) a combination and (ii) a superposition of a front side pattern on its front side and of a reverse side pattern on its reverse side

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Dames to include the authentication pattern on both sides

of the security element, as taught by Melling, to allow the security element to be easily read or verified from either side of a banknote and to further enhance the security of the security element by providing an additional counterfeit prevention technique that is more difficult and costly to reproduce.

6. Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaule et al. US 4,892,336 in view of Melling et al. US 4,943,093 and further in view of Boehm US 4,897,300.

The teachings of Kaule as modified by Melling have been discussed above.

Kaule as modified by Melling fails to explicitly teach:

With respect to claim 5:

- Wherein the colors on the front and reverse sides are chosen from primary colors

With respect to claim 9:

- Wherein it includes printing in an amount of 1 to 10 g/m² per side, preferably between about 2 and 5 g/m² per side, by dry weight

However, Boehm teaches:

With respect to claim 5 and incorporating all limitations of claim 4:

- Wherein the colors on the front and reverse sides are chosen from primary colors (Column 2, Lines 1-3)

With respect to claim 9 and incorporating all limitations of claim 1:

- Wherein it includes printing in an amount of 1 to 10 g/m² per side, preferably between about 2 and 5 g/m² per side, by dry weight (Column 4, Lines 6-11 teaches choosing quantity of color based on the luminescence of the color used but does not specifically teach the above ranges)

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Kaule as modified by Melling to use primary colors for the printing, as taught by Boehm, as it would be an obvious matter of design choice within the skill of the art, where primary ink colors are well-known and commercially available ink colors that when printed on both sides, as was taught in the invention of Melling, will produce a known secondary color mix in transmitted light that is easily identifiable.

However, it would have been obvious to one of ordinary skill in the art to modify the invention of Kaule as modified by Melling to print within the ranges shown above since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 233)

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dames et al. US 5,697,649 in view of Melling et al. US 4,943,093 and further in view of Applicant's admitted prior art.

The teachings of Dames as modified by Melling have been discussed above.

Dames as modified by Melling fails to teach:

With respect to claim 17:

- Wherein said fibrous sheet is a paper based on cellulose fibers refined to a low degree, of the overlay type

However, Applicant's admitted prior art Page 7, Lines 15-17 of the Specification filed 8/10/06 states that it is a conventional technique to refine cellulose fibers to a low degree for a sheet of paper of the overlay type.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Dames to use paper made of cellulose fibers refined to a low degree, as taught by Applicant's admitted prior art, to increase the tensile strength as well as the porosity and impregnatability of the paper.

Examiner's Note

The Examiner has cited particular column and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is

respectfully requested from the Applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the Prior Art or disclosed by the Examiner.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Applicant's newly amended claims now require the authentication pattern to be on the front and the reverse side, whereas previously it required the pattern to be located on the front and/or the reverse side. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Response to Arguments

Applicant's arguments with respect to claims 1-3, 6-8, 10-12, 14, 16 and 18-22 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KRISTY A. HAUPT whose telephone number is (571)272-8545 and email address is kristy.haupt@uspto.gov. The examiner can normally be reached on M-F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kristy A Haupt/
Examiner, Art Unit 2876

/Michael G Lee/
Supervisory Patent Examiner, Art Unit 2876